

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT -- NSPS SOURCE -- RENEWAL

PERMITTEE

Rockford Memorial Hospital
Attn: John Acardo
2400 North Rockton Avenue
Rockford, Illinois 61103

Application No.: 73010808

I.D. No.: 201030API

Applicant's Designation:

Date Received: June 14, 2005

Subject: Hospital

Date Issued: October 6, 2005

Expiration Date: October 6, 2010

Location: 2400 Rockton Avenue, Rockford

This permit is hereby granted to the above-designated Permittee to OPERATE emission unit(s) and/or air pollution control equipment consisting of three natural gas/fuel oil fired boilers, three ethylene oxide sterilizers and two emergency diesel engine/generators as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

- 1a. This federally enforceable state operating permit is issued to limit the emissions of air pollutants from the source to less than major source thresholds (i.e., 100 tons/year for nitrogen oxides (NO_x) and sulfur dioxide (SO₂)). As a result the source is excluded from the requirement to obtain a Clean Air Act Permit Program permit. The maximum emissions of this source as limited by conditions of this permit, are described in Attachment A.
- b. Prior to issuance, a draft of this permit has undergone a public notice and comment period.
- c. This permit supersedes all operating permits issued for this location.
- 2a. The Burham boiler is subject to New Source Performance Standards (NSPS), 40 CFR 60, Subparts A and Dc. The Illinois EPA is administering these standards in Illinois on behalf of the United States EPA under a delegation agreement.
- b. Sulfur Dioxide emission from the boiler shall not exceed the applicable limit pursuant to 40 CFR 60.42c(d).
- c. At all times the Permittee shall, to the extent practicable, maintain and operate the boiler, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions.
3. No person shall cause or allow the emission of sulfur dioxide into the atmosphere from the boilers and diesel engines in any one hour period when burning distillate fuel oil exclusively to exceed 0.3 lbs/mmBtu (Ill. Adm. Code 214.122, 214.161 and 214.304).

4. Operation of the boilers shall not exceed the following limits:

a. Natural Gas Firing Mode:

Natural Gas Usage: 45 mmscf/month, 450 mmscf/year

<u>Pollutant</u>	Emission	Emissions	
	Factor (Lb/mmscf)	(Tons/Mo)	(Tons/Yr)
Nitrogen Oxide (NO _x)	100	2.3	22.5
Carbon Monoxide (CO)	84	1.9	18.9
Particulate Matter (PM)	7.6	0.2	1.7
Volatile Organic Material (VOM)	5.5	0.1	1.2

b. Distillate Fuel Oil Firing Mode:

Fuel Oil Usage: 475,000 gallons/month, 875,000 gallons/year

<u>Pollutant</u>	Emission	Emissions	
	Factor (Lb/10 ³ Gal)	(Tons/Mo)	(Tons/Yr)
Sulfur Dioxide (SO ₂)	41	9.7	17.9
Nitrogen Oxide (NO _x)	20	4.8	8.8
Carbon Monoxide (CO)	5	1.2	2.2
Particulate Matter (PM)	2	0.5	0.9

These limits are based on the maximum operating rate, standard emission factors given by AP-42 and sulfur content of fuel oil 0.3 weight percent. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the preceding 12 months.

5. Operation and emissions of the two emergency generators (combined) shall not exceed the following limits:

Fuel Oil Usage: 33,000 gallons/month, 33,000 gallons/year

<u>Pollutant</u>	Emission	Emissions	
	Factor (Lb/10 ³ Gal)	(Tons/Mo)	(Tons/Yr)
Nitrogen Oxide (NO _x)	437	7.2	7.2
Sulfur Dioxide (SO ₂)	141	2.3	2.3
Carbon Monoxide (CO)	134	2.2	2.2
Particulate Matter (PM)	14	0.2	0.2
Volatile Organic Material (VOM)	11	0.2	0.2

These limits are based on the maximum engine operations, engine manufacturer's emission factor and sulfur content of fuel oil 0.3

weight percent. Compliance with annual limits shall be determined on a monthly basis from a running total of 12 months of data.

6. Ethylene oxide usage and VOM emissions from three ethylene oxide sterilizers shall not exceed 21 lbs/month and 0.13 tons/year.
7. The Permittee shall maintain monthly records of the following items:
 - a. Natural gas usage (mmscf/month and mmscf/year);
 - b. Distillate fuel oil usage in the boilers (gal/month and gal/year) and its sulfur content (weight %);
 - c. Ethylene oxide usage (pounds/month and pounds/year);
 - d. Fuel oil usage in the diesel engines (gallons/month and gallons/year); and
 - e. Emission calculations (tons/month, tons/year).
8. All records and logs required by this permit shall be retained at a easily accessible location at the source for at least three years from the date of entry and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request. Any records retained in an electronic format (e.g., computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to the Illinois EPA or USEPA request for records during the course of a source inspection.
9. If there is an exceedance of the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA Compliance Section in Springfield, Illinois within 30 days after the exceedance. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences.
10. Two (2) copies of required reports and notifications concerning equipment operation or repairs, performance testing or a continuous monitoring system shall be sent to:

Illinois Environmental Protection Illinois EPA
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA regional office at the following address unless otherwise indicated:

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Illinois Environmental Protection Illinois EPA
Division of Air Pollution Control
5415 North University
Peoria, Illinois 61614

If you have any questions on this, please call Valeriy Brodsky at
217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:VJB:psj

cc: Illinois EPA, FOS Region 2
Lotus Notes

Attachment A - Emissions Summary

This attachment provides a summary of the maximum emission from the hospital operating in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Illinois EPA used the annual operating scenario which results in maximum emissions from such source. This is combustion of 450 mmscf of natural gas and 875,000 gallons of fuel oil in the boilers and combustion of 33,000 gallons of fuel oil in the emergency generators. The resulting maximum emissions are below 100 tons per year of NO_x and SO₂ at which this source would be considered a major source for purposes of the Clean Air Act Permit Program. Actual emissions from this source will be less than predicted in this summary to the extent that material is handled, and control measures are more effective than required in this permit.

<u>Emission Units</u>	<u>NO_x</u>	<u>SO₂</u>	<u>CO</u>	<u>PM</u>	<u>VOM</u>
Three Boilers (Gas Firing Mode)	22.5	---	18.9	1.7	1.2
Three Boilers (Fuel Oil Firing Mode)	8.8	17.9	2.2	0.9	---
Two Diesel Engines	7.2	2.3	2.2	0.2	0.2
Three Ethylene Oxide Sterilizers					<u>0.13</u>
Totals	<u>38.5</u>	<u>20.2</u>	<u>23.3</u>	<u>2.8</u>	<u>1.5</u>

VJB:psj